

REMARKS

Claims 65-67 are pending.

Applicant respectfully requests reconsideration of the Examiner's rejection of claims 65-67 over Lange.

A. Lange Does Not Render Claims 65 and 67 Obvious, Because Lange Teaches Away From Outcome States That Are *Not* Mutually Exclusive

As amended, claims 65 and 67 are describe a group of related financial products defined by an interest rate, an expiry, a fixed payout, a first premium to be paid by a buyer of a first financial product when the first financial product is issued, and a second (different) premium to be paid by a buyer of a second financial product when the second financial product is issued. First and second value changes in the interest rate are selected and used for defining the strike rates for the first and second financial products, respectively. The first strike rate and the second strike rate are set directionally in the *identical* direction with respect to the first value of the interest rate (i.e., either both the first and second strike rates are above the first value of the interest rate, or alternatively, both the first and second strike rates are below the first value of the interest), and *the first strike rate is greater than the second strike rate*.¹ Significantly, the first strike rate and the second strike rate are defined such that, in instances where the direction of the strikes is positive, the following outcomes are possible:

¹ In claims 65 and 67, the first and second strike rates are based on "the first value change" and "the second value change," respectively. The claims further specify that "the absolute change in value associated with the second value change is *greater than* the absolute change in value associated with first value change, and [that] the direction of change in value associated with the first value change is identical to the direction of change in value associated with the second value change."

1. Neither the first financial product nor the second financial products expires “in the money” (in this outcome, the interest rate fails to reach the first strike rate at expiry);
2. The first financial product expires “in the money” and the second financial product fails to expire in the money (in this outcome, the interest rate reaches the first strike rate but fails to reach the second strike rate at expiry); or
3. The first financial product and the second financial products ***both expire “in the money”*** (in this outcome, the interest rate reaches the second strike rate at expiry).

An example of such a scenario may be illustrated using the contracts shown in Figure 3 of the Specification (a portion of which is set forth below):

³⁴⁰ EXPIRY	³⁴⁵ Δ CHANGE	³⁵⁰ PREMIUM	QUANTITY AVAILABLE ³⁶⁰
CLOSE 10-16-2000	\$1.25	\$47.00	250
CLOSE 10-16-2000	\$2.25	\$33.00	375
CLOSE 10-16-2000	\$3.00	\$26.00	4000

Referring specifically to the first two contracts shown, the first contract has a strike that is \$1.25 above the current price of the underlying instrument and the second contract has a strike that is \$2.25 above the current price of the underlying instrument. In this example, if the price of the underlying instrument exceeds the current price by more than \$2.25 at expiry, then ***both the first contract and the second contract will expire “in the money.”***

Significantly, as a result of the way that the relative strike rates are set, the outcome states of the first and second contracts are ***not mutually exclusive***, e.g., an outcome state exists where ***both*** the first and second contracts expire “in the money.”

The fact that Applicant’s pending independent claims define contracts with outcome states that are ***not mutually exclusive*** sets the pending claims apart from Lange which discloses methods for trading “demand-based adjustable return contingent claims” (or DBAR contingent claims) that correspond to a distribution of “***mutually exclusive*** and collectively

exhaustive” outcomes (or states) of an observable event. [Lange, ¶171]. Lange speaks at length about the mutually exclusive nature of its defined outcome states:

These hypothetical financial products typically are designed to pay one unit of currency, say one dollar, to the trader or investor if a particular outcome among a set of possible outcomes occurs. Possible outcomes may be said to fall within "states," which are typically constructed from a distribution of possible outcomes (e.g., the magnitude of the change in the Federal Reserve discount rate) owing to some real-world event (e.g., a decision of the Federal Reserve regarding the discount rate). In such hypothetical financial products, a set of states is typically chosen so that the states are mutually exclusive and the set collectively covers or exhausts all possible outcomes for the event. This arrangement entails that, by design, exactly one state always occurs based on the event outcome [Lange, ¶0006]

* * *

“the states for a given contingent claim preferably are defined in such a way that the states are mutually exclusive and form the basis of a probability distribution, namely, the sum of the probabilities of all the uncertain outcomes is unity. For example, states corresponding to stock price closing values can be established to support a group DBAR contingent claims by partitioning the distribution of possible closing values for the stock on a given future date into ranges. The distribution of future stock prices, discretized in this way into defined states, forms a probability distribution in the sense that each state is mutually exclusive, and the sum of the probabilities of the stock closing within each defined state at the given date is unity. [Lange, ¶ 171]

* * *

A DBAR Range Derivative (DBAR RD) is a type of group of DBAR contingent claims implemented using a canonical DRF described above. ... in a DBAR RD, states are preferably defined so as to be mutually exclusive as well, meaning that the states are defined in such a way so that exactly one state occurs. If the states are defined to be both mutually exclusive and collectively exhaustive, the states form the basis of a probability distribution defined over discrete outcome ranges. Defining the states in this way has many advantages as described below, including the advantage that the amount which traders invest across the states can be readily converted into implied probabilities representing the collective assessment of traders as to the likelihood of the occurrence of each state [Lange, ¶ 314]

The fact that Lange's outcome states are mutually exclusive is *fundamental* to the operation of Lange's trading structure "in which amounts invested in on each state in a group of DBAR contingent claims are *reallocated from unsuccessful investments*, under defined rules, *to successful investments*" [Lange, ¶ 0049]. Such a reallocation (i.e., from unsuccessful investments to successful investments) is simply not possible where, as is the case in Applicant's claims, the outcome states are not mutually exclusive. For example, in Applicant's example (described above) where the first financial product and the second financial products *both expire "in the money"* (i.e., where the interest rate reaches the second strike rate at expiry), Lange's reallocation could not be performed since *no unsuccessful investment would exist as a source for funding the successful investments*.

In the last Official Action, the Examiner acknowledged that Lange failed to teach outcome states that are not mutually exclusive. However, the Examiner reasoned that modifying Lange so as to have outcome states that are not mutually exclusive would have been obvious. Applicant respectfully disagrees, and refers the Examiner to Section 2143.03 of the Manual of Patent Examining Procedure (MPEP), which provides in pertinent part as follows:

If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) MPEP, Section 2143.01(V).

Clearly, if Lange were modified to have outcome states that are not mutually exclusive, Lange would cease to provide a viable trading environment because *it would not be possible to reliably finance successful investments from unsuccessful investments*. See also *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (The court reversed the rejection holding

the "suggested combination of references would require ... a change in the basic principle under which the [primary reference] construction was designed to operate.") Simply put, since the proposed modification of Lange (from mutually exclusive to non-mutually exclusive states) would render Lange unsatisfactory for its intended purpose and result in a change in the basic principal upon which Lange was designed to operate (i.e., the reallocation from unsuccessful investments to successful investments), it is clear as a matter of law that it would not be obvious to modify Lange in the manner suggested by the Examiner.

B. Lange Does Not Render Claims 65 and 67 Obvious, Because In Lange All Traders For A Group Of DBAR Claims Are Counterparties To Each Other

In Lange, "a[[l]] traders for a group of DBAR contingent claims depending on a given event become counterparties to each other, leading to a mutualization of financial interests." [Lange, ¶50].² In contrast to Lange, pending independent claims 65 and 67 describe first and second transactions where the seller represents the only counterparty of the buyer in each such transaction. Moreover, the claims specify that further transactions (i.e., in addition to the first and second transactions) are executed on the common trading platform. In such further

² See also Lange, ¶84 (It is an object of the present invention is to provide ... statistical diversification of credit risk through the mutualization of multiple derivatives counterparties); and Lange, ¶191 ("An important feature ... is the ability to provide diversification of credit risk among all the traders who invest in a group of DBAR contingent claims. ... In such embodiments, a given trader has all the other traders in the exchange as counterparties, effecting a mutualization of counterparties and counterparty credit risk exposure. Each trader therefore assumes credit risk to a portfolio of counterparties rather than to a single counterparty").

transactions, *additional buyers* who are not counterparties to the first or second transaction, purchase contracts with identical expiry, payout, premium and strike characteristics as that of either the first or second financial products.³ Thus, the pending claims describe a market where there are *more than two traders*, and where *the seller represents the only counterparty of the buyer* in each of the first and second transactions.

The Examiner has acknowledged in the last Official Action that Lange fails to teach transactions such as those recited in the present claims where the seller represents the only counterparty of the buyer. However, the Examiner has reasoned that the present claims are obvious over Lange because Lange could be implemented with *just two traders* (i.e., a buyer and a seller). Applicant respectfully submits that the Examiner's position on this issue is inconsistent with the current wording of the claims which requires *more than two traders* in the market, i.e., the pending claims require *additional buyers* who are not counterparties to the first or second transaction. Thus, if Lange were implemented with *only* two traders (as the Examiner has suggested), Lange would lack the *additional buyers* who are not counterparties to the first or second transaction, as required by Applicant's pending claims.

³ This limitation is set forth in claims 65 and 67 which recite "a common electronic platform wherein the first transaction is executed, the second transaction is executed and a plurality of additional buyers execute further transactions to purchase further financial products selected from the group consisting of: (i) financial products defined by the expiry and the fixed payout, and having a premium identical to the first premium and a strike rate identical to the first strike rate, and (ii) financial products defined by the expiry and the fixed payout, and having a premium identical to the second premium and a strike rate identical to the second strike rate, and wherein said plurality of additional buyers include one or more buyers that are not counterparties to the first or second transaction." These limitations are supported, for example, at paragraph [0056] (describing a transaction where there are *only two counterparties*, i.e., the buyer and the seller, as explained in the Amendment dated October 31, 2007 at 8) and paragraph [0095] ("It is possible that different participants in the present trading system may offer *identical* contracts").

Simply put, the claims are not obvious over Lange because if Lange is defined using an implementation with only two traders, material limitations in Applicant's claims (i.e., the additional buyers who are not counterparties to the first or second transaction) would by definition be absent from Lange. See MPEP Section 2143.03 ("To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.").

Reconsideration of the previous rejection is respectfully requested in view of the foregoing amendments and remarks. A notice of allowance is earnestly solicited.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310 (Billing No. 053775-5001). If a fee is required for an extension of time under 37 C.F.R. §1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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